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JOHN C. STENNIS SPACE CENTER

Small Spacecraft Technology Initiative Education Program Fact Sheet

Personnel from the Commercial Remote Sensing Program (CRSP) office at NASA's John C. Stennis Space Center in South Mississippi are working closely with two teams TRW, Inc. of Redondo Beach, Calif., and CTA of Rockville, Md. to build, launch and help develop two small demonstration satellites for the Small Spacecraft Technology Initiative (SSTI).

Representing a new generation of low-cost spacecraft loaded with state-of-the-art instruments, each satellite will transmit high-quality data to demonstrate next-generation remote sensing technology. These technology spacecraft, named after the explorers Lewis and Clark, will demonstrate how remote sensing devices of the future can provide data more efficiently and effectively. Stennis Space Center personnel are also coordinating education programs through the SSTI for middle schools and high schools to spark the interest of future engineers and scientists.

The mission of the SSTI education program uses NASA-sponsored tools to prepare students for careers that employ science and advanced technologies. The program introduces students and faculty to the concepts and tools of remote sensing and Geographic Information Systems (GIS). Students use remotely sensed imagery collected over their local communities in combination with other data sources to conduct an application project. For example, one school was able to identify the best location for a potential water reservoir in its county.

The schools selected to participate became members of the SSTI/TRW and CTA teams. Lockheed Martin of Denver, Colo., a CTA team member, is also sponsoring schools in the Denver area. Prototype data is collected using a Learjet operated by NASA's Commercial Remote Sensing Program at Stennis Space Center. The NASA Learjet collects data over the study sites of selected schools prior to launch of the satellite so that students can become familiar with remotely sensed data and project management.

One of the main goals of the SSTI educational effort is to ensure that the students and faculty own the project. They must have full participation in selection, design and execution of the project. CRSP personnel at Stennis use their experience in the development of remote sensing applications to guide students and teachers in project design and train them in the use of remote sensing and GIS technologies.

Lewis schools sponsored by TRW, Inc. of Redondo Beach, Calif.:

- W.P. Daniel High School, New Albany, Miss.
- Inglewood High School, Inglewood (Los Angeles), Calif.
- Glenbrook Middle School, Concord, Calif.

Clark schools sponsored by CTA of Rockville, Md.:

- Montgomery Blair High School, Silver Spring, Md.
- Thomas Jefferson High School of Science & Technology, Alexandria, Va.

sponsored by Lockheed Martin of Denver, Colo.:

- Wheat Ridge High School, Wheat Ridge, Colo.
- John F. Kennedy High School, Denver, Colo.

For more information about NASA's Small Spacecraft Technology Initiative Education Program, contact the Stennis Space Center Commercial Remote Sensing Program Office at (601) 688-2042, or access the SSTI home page on the World Wide Web at http://crsphome.ssc.nasa.gov.SSTI/WELCOME.HTM (no quotes).

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 Return to Stennis Fact Sheets